

Title (en)

COOLANT PUMP FOR AN INTERNAL COMBUSTION ENGINE

Title (de)

KÜHLMITTELPUMPE FÜR EINE VERBRENNUNGSKRAFTMASCHINE

Title (fr)

POMPE À LIQUIDE DE REFROIDISSEMENT POUR UN MOTEUR À COMBUSTION INTERNE

Publication

EP 3371430 A1 20180912 (DE)

Application

EP 16785430 A 20161019

Priority

- DE 102015119093 A 20151106
- EP 2016075079 W 20161019

Abstract (en)

[origin: WO2017076647A1] Coolant pumps for internal combustion engines are known, comprising a drive shaft (18), a coolant pump impeller (20) which is rigidly arranged on the drive shaft (18) at least in a rotationally fixed manner and by means of which coolant can be pumped, and an adjustable control slide (58), by means of which a flow cross-section of an annular gap (62) between an outlet (64) of the coolant pump impeller (20) and the surrounding pump channel (12) can be regulated. In order to achieve a secure seal of the two opposing pressure chambers (92, 94) in particular during a purely hydraulic adjustment, the control slide (58) has an inner hollow cylindrical circumferential wall (84), on the radial inner face of which a radial groove (86) is formed, a seal ring (88) being arranged in said radial groove, and the control slide also has an outer hollow cylindrical circumferential wall (60), on the radial outer face of which a radial groove is formed (74), a seal ring (76) being arranged in said radial groove. The two circumferential walls (60, 84) are connected together via a base (80).

IPC 8 full level

F01P 7/16 (2006.01); **F04D 15/00** (2006.01)

CPC (source: EP)

F01P 7/16 (2013.01); **F01P 7/162** (2013.01); **F04D 15/0038** (2013.01); **F04D 29/086** (2013.01); **F01P 2007/146** (2013.01); **F05D 2270/64** (2013.01)

Citation (search report)

See references of WO 2017076647A1

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

WO 2017076647 A1 20170511; DE 102015119093 A1 20170511; EP 3371430 A1 20180912; EP 3371430 B1 20210224

DOCDB simple family (application)

EP 2016075079 W 20161019; DE 102015119093 A 20151106; EP 16785430 A 20161019